

REMARKS

[0001] Claims 1-23 are pending in the case. Claims 18-20 have been withdrawn. Claim 1 has been objected to for informalities. Claims 1-3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,445,233 to Fernie *et al.* (hereinafter “Fernie”) in view of U.S. Patent No. 6,429,849 to An *et al.* (hereinafter “An”). Claims 4-8, 10-11, 15, 16, and 21-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fernie and An in view of U.S. Patent No. 5,923,096 to Manak (hereinafter “Manak”). Claims 12-14, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fernie and An in view of U.S. Patent No. 6,009,363 to Beckert *et al.* (hereinafter “Beckert”). Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,484,646 to Smith (hereinafter “Smith”) in view of U.S. Patent No. 3,245,493 to Barrett, Jr. (hereinafter “Barrett”). In view of the following remarks, reconsideration and allowance of claims 1-23 is respectfully requested.

[0002] Claim 1 has been amended to correct the typographical error at line 5 as suggested by the Examiner.

RESPONSE TO REJECTION OF CLAIMS 1-3 UNDER 35 U.S.C. §103(a)

[0003] Independent Claim 1 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Fernie in view of An. It is well known that in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the

prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2142 under the heading "ESTABLISHING A *PRIMA FACIE* CASE OF OBVIOUSNESS."

[0004] Regarding the first criterion, the examiner bears the initial burden of providing a motivation or suggestion to combine the references. In pertinent part, MPEP §2142 states, "[t]o support the conclusion that the claimed invention is directed to obvious subject matter, either the references must **expressly or impliedly suggest** the claimed invention or the examiner must **present a convincing line of reasoning** as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references (emphasis added)." Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). Applicants assert that the Office Action neither demonstrates how the references "expressly or impliedly suggest" the invention nor presents "a convincing line of reasoning" as to why the invention would be found obvious.

[0005] Fernie describes a multi-directional wheelchair having two drive wheels driven by separate motors. Each motor is capable of driving one wheel forwardly or backwardly, independently of the other wheel. See abstract. Fernie also teaches a control panel that "consists essentially of a "joystick" control lever 62, swingably mounted in a base 64." See col.4, lines 51-52. Fernie describes that the joystick may be moved forwardly or backwardly, or from side to side, or in any diagonal fashion. See col. 4, lines 53-54. Fernie, however, does not teach a twisting motion to permit the wheelchair to spin about its axis.

[0006] An teaches a joystick that provides input signals for controlling computer programs. See abstract. Signals are produced by the joystick for use in controlling a computer software program such as a **computer game**, in response to a pivotal displacement of the joystick. See col. 4, lines 26-29. Furthermore, An describes the joystick having various control

button input signals in regard to a computer game executing on a computer. *See* col. 6, lines 59-61. An does not teach a twisting motion to permit a vehicle to spin about its axis, but rather provides input to a computer game.

[0007] Neither An nor Fernie expressly or impliedly teach or suggest a joystick providing a twisting motion to permit a vehicle to spin about its axis. If no express or implied suggestion is found, the Examiner must present a convincing line of reasoning as to why one skilled in the art at the time the invention was made would find the claimed invention obvious. The Office Action merely recites elements of both Fernie and An and then states, “it would require only routine skill in the art...” to show that the invention could be made. In so doing, the Office Action does not show why one of skill in the art would think to connect a joystick with a twisting motion in such a way that the twisting motion causes the vehicle to spin about its axis. The fact that the combination can be made does not teach one how to make the combination.

[0008] The Office Action has not cited a teaching or suggestion for each and every element. Nothing in the prior art teaches how to combine the references to come up with the claimed invention. That is, even if the combination is suggested, nowhere does it teach how to make the combination such that twisting the joystick causes the vehicle to turn in place. The Office Action makes this connection only through impermissible hindsight.

“To reach a proper determination under 35 U.S.C. 103, **the examiner must step backward in time** and into the shoes worn by the hypothetical “person of ordinary skill in the art” when the invention was unknown and just before it was made. In view of all factual information, the examiner **must then make a determination whether the claimed invention “as a whole” would have been obvious at that time to that person. Knowledge of applicant’s disclosure must be put aside in reaching this determination**, yet kept in mind in order to determine the “differences,” conduct the search and evaluate the “subject matter as a whole” of the invention. The tendency to resort to “hindsight” based upon applicant’s disclosure is often difficult to avoid due to the very nature of the examination process. **However, impermissible hindsight must be avoided** and

the legal conclusion must be reached on the basis of the facts gleaned from the prior art.” (emphasis added) (See MPEP §2142).

[0009] Therefore, in determining motivation to combine, it is impermissible to use the specification or disclosure provided by the Applicant as a “road map” to guide one from the teachings in Fernie to the teachings in An. Here, the Office Action clearly utilizes the claimed invention as a “road map” to guide one from Fernie to An because neither Fernie nor An suggest, expressly or impliedly, the combination as asserted by the Office Action.

[0010] In view of the issues raised above, Applicants respectfully assert that Claim 1 is patentable over the cited references, and respectfully request that the rejection under 35 U.S.C. § 103(a) be withdrawn. Additionally, Applicants respectfully submit that Claims 2-3 are allowable for depending from an allowable independent claim.

RESPONSE TO REJECTION OF CLAIMS 4-17 UNDER 35 U.S.C. § 103(a)

[0011] Claims 4-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fernie, An, Manak, Beckert, Smith, and Barrett. Applicants respectfully submit that claims 4-17 are in condition for prompt allowance for depending from an allowable independent claim 1.

[0012] Furthermore, Applicant respectfully submits that the rejection of claims 15 and 16 under 35 U.S.C. § 103(a) is improper because the combination of Manak with either of Fernie or An fails to suggest or teach all of the claimed elements of the invention. Specifically, Manak does not teach a vehicle control computer configured to limit vehicle functionality, automatically guide the vehicle, and control various functions of the vehicle.

[0013] Manak discloses an electric vehicle capable of adjusting the acceleration rate used in order “to avoid harsh or jerky starts.” *See* col. 4, lines 13-14. Consequently, quick and sudden stops are eliminated. An “acceleration rate” or rate of acceleration, by definition, is the rate at

which the velocity of an object changes with respect to time. An equipment profile is not an example of an acceleration rate.

[0014] The claimed invention specifically defines the term “equipment profile” to take account of settings such as type of user permissions and equipment capabilities to determine and influence or override driving characteristics, optimizing battery energy, towing permissions, and several other features. *See* Paragraph [0045], lines 5-8. The specification reasonably conveys the ability of the equipment profile to override user input, and among other things, the ability of the vehicle to leave a geographic region defined by a permission map.

[0015] Manak does not disclose this capability. Therefore a suggestion to combine Manak with Fernie and An fails to disclose each and every element of the claimed invention with regard to claim 15. Furthermore, claims 15 and 16 depends from an allowable independent claim 1 for the reasons discussed above. Therefore Applicant asserts claims 15 and 16 are in condition for prompt allowance.

[0016] Referring specifically to claim 17, the Examiner rejected claim 17 under 35 U.S.C. § 103 (a) as being unpatentable over Smith in view of Barrett. It is unclear whether the Examiner intended to combine Smith with Barrett as no mention is made of Smith in the comments, or if the Examiner intended to reject claim 17 with a combination of Barrett, Fernie and An. Regardless, the Applicant respectfully disagrees. The MPEP states “[i]f the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *See In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) as recited in MPEP § 2143.01 under the heading **THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE**. Here, the combination of Barrett

and Smith renders either device unsatisfactory for its intended use.

[0017] Barrett, as correctly noted by the Examiner, teaches a vehicle which includes automatic ride procedures. However, the vehicle as taught by Barrett requires the use of predetermined, energized paths along which the vehicle travels. The vehicle has sensors for following the paths, and makes decisions on which path to follow depending upon the frequency of the main path, or the alternate path. *See* col. 4, lines 7-10. It is not possible for the vehicle, as taught by Barrett, to travel without the use of the energized path. Furthermore, the intended use of the Barrett vehicle is to move and guide a driverless mobile vehicle from one station to another.

[0018] Smith, on the other hand, teaches a recreational go-cart which may travel in any direction in response to user input. Control levers are provided, one for each wheel that simultaneously brake and disengage drive power to the corresponding wheel. *See* abstract.

[0019] The combination of Barrett with Smith would destroy the utility or intended purpose of both references. Firstly, a go-cart that is intended to travel in any direction in response to user input is hardly “recreational” if restricted to following predetermined energized paths. Likewise, the combination of Barrett with Fernie and An as applied to claim 1 likewise destroys the utility or intended purpose of Fernie, An, and Barrett.

RESPONSE TO REJECTION OF CLAIMS 21-23 UNDER 35 U.S.C. § 103(a)

[0020] Claims 21-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fernie and An in view of Manak. Claim 23 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Fernie and An in view of Beckert. For the reasons discussed above, Fernie and An fail to support a *prima facie* case of obviousness. Therefore, the combination of Fernie and An with either of Manak or Beckert likewise fails to suggest, expressly or impliedly, the

claimed invention. Specifically, none of the references suggests a joystick providing a twisting motion to permit a vehicle to spin in place.

[0021] In view of the foregoing, Applicant submits that the application is in condition for immediate allowance. In the event any questions remain, the Examiner is respectfully requested to initiate a telephone conference with the undersigned.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "B.C. Kunzler", is written over a horizontal line.

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